


# Crunching the Numbers



**How HME providers can leverage the patient data they collect to improve outcomes, and why they need to get started.**

*By David Kopf*

For several years now, HME providers have been using information technology to not only improve their billing and reimbursement, but to better manage other aspects of their businesses. They have used software to lower their inventory overhead; streamline purchasing; improve their claims documentation; reduce their audit exposure; ensure more efficient deliveries; track maintenance; and even fast track their adoption of retail sales.

And they're quickly finding that they can accomplish another feat using information technology: improve patient care and outcomes. Given the long relationship that many providers foster with their patients, as well as the close connections they have with their referral partners, providers are collecting a considerable amount of patient data. And they're in a position to collect even more. And that wealth of information can be used to help ensure patients are using their equipment right, stick to their treatment, and enjoy the best possible results.

"We live in a data-driven world," says Justin Buckland, market analyst for HME software company QS/I. "Patient data can be analyzed and shared in ways that can result in achieving better patient and therapeutic outcomes. Some [software] vendors work with healthcare providers to reduce the likelihood of both

hospital admission and readmission rates. Additionally, lab values and genetic information can be shared to ensure that patients who are most at-risk receive more attention than the rest of the patient population." "This data is critical to the overall care provided to the patient," adds Chris Dobiesz, CEO of Universal Software Solutions. "It gives DME providers the ability to contribute to more efficient quality care of the patient by assisting hospital, physicians and clinical staff with reducing readmissions and patient education."

And that information can reverberate back to the business side of the equation. If a provider notices that certain patients using certain equipment are having better outcomes, opting for that equipment can turn into a practice that is applied throughout the rest of the business.

"Trending the effectiveness of products and services that are provided by HME providers is necessary to understanding how to grow and sustain an HME business," says Kimberly Commito, director of product management at software company Medware. "Patient data can be easily captured and maintained in software solutions on the market. In many cases, even specific metrics that are important to a given entity can be entered into the system using features such as Custom Assessment and Forms, as well as Custom Defined Data Entry fields.

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— Justin Buckland, QS/1

These are typically available for reporting as well and a great way to capture consistent data, by utilizing required flags and data entry options that standardize responses.”

## Current Status of Patient Data Collection

So where does the industry stand in terms of patient data? In terms of understanding patient data collection and how to use it the best place to start is to determine what providers are currently doing that regard. Are most providers collecting patient data, or is it the practice the exception rather than the rule?

In terms of the industry's current level of adoption, Dobiesz sees a correlation between size and immediacy with referrals.

“We currently see this data being collected more so by our larger, hospital-based DME providers,” he notes.

Increased adoption of patient data collection, will come with an increased focus on outcomes by all the players involved in a patient's care. Everyone has to determine what they need to monitor and how to define the metrics surrounding that, according to Medware's Commito.

“Meaningful Use came closest in recent years, to defining what should or should not be captured in terms of patient data,” Commito explains. “Unless outcomes are well defined for specifically homecare, however, and the data is required to be entered into the HME software application, it tends to be more the exception than the rule to collect it in the first place.”

“This is where businesses can look to CMS and other entities to see how they are defining outcomes and tailor their systems to the collection of the data they need,” she adds. “In addition, setting your own metrics is important as well to gauge how your business is doing in relationship to patient positive experience, both from a satisfaction with services and products, as well as positive improvement in their health.”

To get an idea of how this might play out in the HME space, developments in the pharmacy world might paint a picture of how referral partners might work with providers to create metrics for monitoring outcomes, and then providers might track how their patients are complying with treatment in order to help those partners stay on top of the patients' care.

“It seems many vendors collect the data in order to offer adherence services to pharmacies,” QS/1's Buckland explains. “These vendors gather dispensing and demographic information to figure out which day of the month the patient should pick up all their medications or supplies. Additionally, these vendors try to identify adherence outliers – the patients who may not be taking their medications on time or not changing out their supplies as often as needed.”

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— Kimberly Commito, Medware

“Identifying outliers gives pharmacies the opportunity to improve Five-Star ratings,” he continues. “Pharmacies are financially incentivized to have high adherence scores, so they purchase adherence services from these vendors. This is all in an effort to ensure patients have their supplies, which reduces overall healthcare costs. Of course, pharmacists or providers can't force patients to use their supplies the correct way, but they can make sure patients have the supplies they need to start, continue or complete therapies at the appropriate times.”

## Which Data Is the Right Data?

In terms of the types of patient data that providers can collect using their HME management software, diagnosis information is the best place to start. And in that regard, a simple ICD-10 diagnosis code, which the physician must provide, can tell a lot, says Wayne Bailey, director of customer service for software company Bonafide Management Systems.

“In most cases, a patient will provide DME providers with a written order from the physician,” he notes. “The physician must provide diagnosis codes to justify the payment for placing the product on patients. This diagnosis code is a specific problem the patient is encountering. A physician must provide the DME business with CMN/LMN.”

And the level of detail using the “new” codes is markedly better than what providers had up until recently. (The codes are “new” to U.S. healthcare providers, but other countries have used ICD-10 codes for years and years; we only adopted them late last year). ICD-10 offer 71,924 procedure codes and 69,823 diagnosis codes, while ICD-9 only used 3,824 procedure codes and 14,025 diagnosis codes.

“ICD-10s can play a huge role in this,” Buckland explains. “Certain equipment is used to treat specific conditions: People with breathing/sleeping disorders may use CPAP machines, and patients with diabetes purchase syringes and blood-glucose test strips. Such data can be collected and analyzed to produce better outcomes provided HME software users are able to collect therapeutic progress of their patient populations. The data could then be analyzed to figure out how the best outcomes were achieved. Best practices could be identified and implemented.”

“Diagnosis information is important to tie back to services and products that are provided to ensure they are appropriate and effective,” Commito adds.

And there are other key pieces of data that providers currently have that they should use in addition to ICD-10 codes.

“Patient age is also important to gain perspective on the types of products and service that are effective to certain patient populations,” Commito suggests. “In addition, information such as tests that are ordered by physicians and results can be useful if captured and trended. Patient weight trending is important to the enteral and parenteral patient population, as well.”

Other information that can be useful is compliance data and updated visits with key clinical staff, such as Respiratory Therapists, Dobiesz offers.

## Don't Forget HIPAA

Collecting patient data to improve patient outcomes clearly has its benefits and whether they like it or not, providers will be collecting more of it, but providers must remember to handle their data carefully. There are clear legal and patient privacy issues.

“HIPAA limits the amount of information that can be ‘exchanged’ about a patient,” warns Wayne Bailey, director of customer service for software company Bonafide Management Systems. Bailey says his company goes to great lengths to ensure that patient data is always secure and protected.

“While we collect necessary codes to support reimbursement practices, the only other information our software collects is PCI-compliant patient credit card numbers,” he adds.

## Patient Data Ground Zero

As providers get deeper into collecting patient data, they will find that there are certain patients groups that will benefit more from patient data tracking. The two patient groups that have really gravitated toward patient data collect are respiratory and sleep, with sleep being the true driver.

Right now, the big arena for patient monitoring and patient data collection is in sleep therapy. Sleep is the poster child for how much patient data can be collected, how extensively, how often, and how that data can be used.



In the sleep sector, we can see the basic model for how the data is collected, reviewed and used in multiple ways: patient data is collected via a memory card on the PAP therapy device, or delivered wirelessly, or sometimes via phone line. In any case, the near-real-time data is being collected to giving providers and physicians the ability to respond much more quickly to patients' therapy needs.

The sleep provider can provide up-to-the-minute reports on how a sleep patient is faring through the night and whether or not his or her PAP therapy needs adjustment. Also,

each provider can capture and trend metrics that might be important to them through the use of custom assessment and fields throughout their systems. Ensure you have the access you need to your data to adequately report and trend."

Even the simplest of canned reports can shine a light on how providers patients are faring, according to Buckland.

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— Chris Dobiesz, Universal Software Solutions.

through a blend of automated and live communications methods, they can consult with patients and even ensure they are complying correctly. Moreover, since providers and other healthcare professionals can not only see how patients are doing, and respond but use IT to streamline their monitoring and reporting. Efficiency, better care, reduced cost: these are the parameters that will define reduced cost. And the model that sleep is setting is starting to get noticed and adopted by other sectors of HME.

"Sleep Apnea is an area that requires patient compliance and lends itself directly to capturing certain data, whether through electronic data interchange or keying of relevant data to ascertain appropriate outcomes," Mediware's Commito says. "In addition, Enteral use monitoring is important from a product/inventory management perspective when gauging patient satisfaction, if that is an outcome metric being tracked. Also from an effectiveness perspective. Which products are more utilized and gain a desired outcome such as weight gain for example."

The resupply angle related to sleep products is also an important element in why sleep patient data is so heavily tracked and monitored. That dynamic can lend itself to other segments of HME, too.

"Patients that need equipment utilizing complementary supplies would be good candidates," says QS/1's Buckland. "Oxygen, CPAP or wound-care patients would be more likely to benefit from this since recurring supplies are needed for proper use of the equipment. Equipment, such as crutches, is typically a one-time use and not a good fit for the scenario."

#### Getting Started

Regardless of patient groups, providers can get started right now in terms of collecting patient data. Chances are the software systems they have in place provide reporting tools that can tell them a lot about how their patients are doing.

"Analytics built into your software platform should be flexible to include user defined custom fields and data captured on custom assessments," Commito advises. "With a little education, reporting tools that allow you to connect directly to your data is always a plus, since



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"A list of patients who are not regularly getting or using their supplies is a great tool," he says. "Comprehensive, flexible reporting provides the opportunity to see changes and look for reoccurring revenue with home-health patients. Good reporting tools also should help you spot trends."

And when a canned report doesn't do the trick providers can work on generating more customized data searches, but this might require additional muscle, Dobiesz says. In those cases, he suggests providers have software that provides a flexible application programming interface, as well as "skilled report writers and data mining tools that provide business intelligence and access to the data and their individual data elements."

Outside of information technology aspects, providers also need to work with their referral partners to ensure they are collecting data that is of value to those partners, and then communicate that information back to those referrals so that everyone involved in the patient's care can maximize the benefit of the data.

"Providers and their partners, if given the correct information, can make a great team," Buckland says. "A huge benefit to collecting this information is that it shows trends. It shows information on who is getting which equipment, but it also shows who is using the supplies needed with the equipment. For

example, with CPAPs, if patients are using the equipment, they should also be purchasing masks, tubing, etc."

To accomplish that, providers need to build the kinds of data connections that can facilitate regular data reporting and communications.

"Electronic Data Interchange is on the rise to reduce duplicate data entry, reduce mistakes in keying and re-keying the same data and increasing the success of the transfer of information between referral sources," Commito explains.

"Electronic referral service are available, as well as software providers should be offering up connectivity options to key referral sources such as Hospital networks and the like through standards such as HL7 or XML.

"Of course these options come with their own challenges in setting up that connectivity and establishing relationships that govern the sharing of sensitive patient information," she adds.

But providers need to get hopping. Right now, most providers are not communicating electronically with their referral partners, and when they do, they will find that each referral partner might have unique data requirements that must be met, according to Dobiesz.

"Sadly enough, many providers are communicating with their referrals in the traditional manner of phone and paper communications," Dobiesz explains. "Only a small number of providers have started to explore and implement the electronic implementation of data exchange. The challenges in this area are more to do with a common method that is used by all referrals to the provider; each have their own preferred methods."

Ultimately, providers need to get started collecting patient data. From Medicare to private payer, there is a drive among healthcare providers and businesses of all types to cut costs while improving outcomes, and automation is the main ways to accomplish that. This means that providers must leverage data now in order to comply with and contribute to that agenda in the future — their patients' care and their bottom lines will depend on it. ■

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